

WHAT IS CLAIMED IS:

1. A unitary membrane for use in a pressing apparatus, comprising:
a pair of longitudinal edge portions; and
a semipermeable portion having a plurality of intercommunicating pores, said semipermeable portion being positioned between said pair of longitudinal edge portions,
5 wherein said unitary membrane comprises a formed fabric, said unitary membrane having a thickness less than about 0.1 inches, and wherein said semipermeable portion has a permeability greater than zero and less than about five CFM per square foot as measured by TAPPI test method TIP 0404-20.
2. The unitary membrane of claim 1, wherein said semipermeable portion has a permeability greater than zero and less than about two CFM per square foot as measured by TAPPI test method TIP 0404-20.
3. The apparatus of claim 1, wherein said permeability is determined by at least one of a size, a shape, a frequency and a pattern of a plurality of pores in said semipermeable portion.
4. The unitary membrane of claim 1, wherein said pair of longitudinal edge portions are tapered such that a cross-section of said unitary membrane has a trapezoidal shape.
5. The unitary membrane of claim 1, wherein said pair of longitudinal edge portions are impermeable.
6. The unitary membrane of claim 1, wherein said formed fabric forms a flow resistance layer near a surface of said unitary membrane.
7. The unitary membrane of claim 6, wherein said unitary membrane further comprises a fluid distribution layer adjacent said flow resistance layer.

8. The unitary membrane of claim 1, further comprising a surface which is abrasion resistant.

9. The unitary membrane of claim 1, wherein said semipermeable portion has a void percentage of less than 40 percent.

10. A method of making a unitary membrane for use in a pressing apparatus, comprising the steps of:

providing a carrier fabric which is very permeable; and

forming a plurality of intercommunicating pores in said carrier fabric.

11. The method of claim 10, wherein said forming step further comprises the steps of:

blending heat fusible and non-heat fusible fibers;

needling the blend of fibers into said carrier fabric; and

applying heat to melt said heat fusible fibers, which leave voids in the form of

5 intercommunicating pores.

12. The method of claim 11, wherein said needling step further comprises the step of

applying said blend of fibers into said fabric carrier near a surface thereof to form a flow resistance layer near the surface of said unitary membrane.

13. The method of claim 12, further comprising the step of defining a flow distribution layer in said unitary membrane which distributes a fluid flow received from said resistance layer.

14. The method of claim 10, further comprising the step forming a pair of impermeable longitudinal edge portions.

15. The method of claim 10, wherein said forming step comprises the steps of:

forming a resistance layer; and

forming a fluid distribution layer.

16. The method of claim 10, wherein said forming step further comprises the step of successively applying a coating to said carrier fabric until the desired permeability is reached.

17. The method of claim 16, further comprising the step of varying the coating type to adjust said permeability.

18. The method of claim 16, further comprising the step of entraining air into said coating to adjust said permeability.

19. The method of claim 16 further comprising the step of adjusting the solids content of said coating to adjust said permeability.